NOTES de RECHERCHES

THE COSMOPOLITE - LOCALITE MODEL: NEWSPAPER TYPES AND NATURAL HAZARD INFORMATION POTENTIALS

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The Cosmopolite - Localite Model: Newspaper Types and Natural Hazard Information Potentials

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Abstract

The paper presents a description of the Cosmopolite - Localite Model, a conceptual framework in which institutional and news coverage characteristics are organized according to four broad types. Hypothetical reporting patterns on plotted and graphed for the types along a continuum in response to natural hazards exhibiting local, regional, provincial, and international connotations. A similar graphical presentation is used to describe the Model's application to Canadian and American newspaper response to selected hazards affecting near and distant places. In conclusion, the value of the Model to students and practioners of Resource Management is considered.

Résumé

L'auteur présente une description du modèle "Cosmopolite - Localite". Ce modèle est un cadre conceptuel dans lequel les caractéristiques des reportages d'actualités sont organisés selon quatre types. Une présentation graphique sert à décrire l'application de ce modèle aux réactions des journeaux Canadiens et Américains face aux dangers naturels. Pour conclure, l'auteur évalue l'utilité du modèle pour les étudiants et autres interessés.

> *Used generically, newspaper encompasses the Colfax Chronical, the New York Times and the Wall Street Journal. Although each is a newspaper, they differ in news coverage emphasis, geographical coverage and frequency of publication. What may be considered important for one may be excluded from the others. The term newspaper does not provide sufficient description to classify these papers into community, metropolitan, and national categories... Additional confusion (is) caused by the failure to distinguish between types of newspapers....*
>
> *Winford (1978, p. 136)*

Purpose

Within the context of newspaper perception of and response to extreme geophysical events or natural hazards, this paper has three purposes. *First*, it presents a review of the constitution of the *Cosmopolite-Localite Model*, an empirically derived, hierarchial ordering of newspapers according to *type* and hazard *reporting orientation*. The Model has its roots in the antecedent analysis of Canadian newspaper response to Lake Erie north shore hazards and adjustments (Needham, 1976; Needham and Nelson, 1977; Needham and Nelson, 1978). New information and additional insight into editorial philosophies of newspapers from a different economic, physical, political, and social environment - the American south Lake Erie shore - are considered and are reflected in the summaries of newspaper types.

Second, in an effort to explore the Model's university or ability to faithfully highlight similarities and differences among

newspapers and types, it is tested against the hazard news coverage of thirteen Canadian and American newspapers. Experiences with cyclon, earthquake, flood, hurricane, and volcanic eruption are selected because they provide the opportunity to examine newspaper response to hazards which impact near and distant places, and different natural event and human use systems. This general examination of hazard reporting patterns also permits the comparison of Canadian and American newspaper perception of hazard.

Third, the *paper* concludes with a *summary* of results and a brief discussion of the value of conceptualizing newspapers and their reporting orientation by type for resource management.

The Cosmopolite - Localite Model: Major Components

The Cosmopolite - Localite Model is shown graphically in Figure 1. Important institutional and news coverage qualities for each type are listed in Tables 1 to 4. In addition, anticipated hazard news coverage characteristics for each type are described in brief summaries.

The Cosmopolite - Localite Model consists of two major components. The first component is a *reporting orientation continuum*, which ranges from cosmopoliteness at the extreme left to localiteness at the extreme right (Figure 1). Between these extremes exist numerous intermediate orientations. The term, *cosmopolite*, is defined

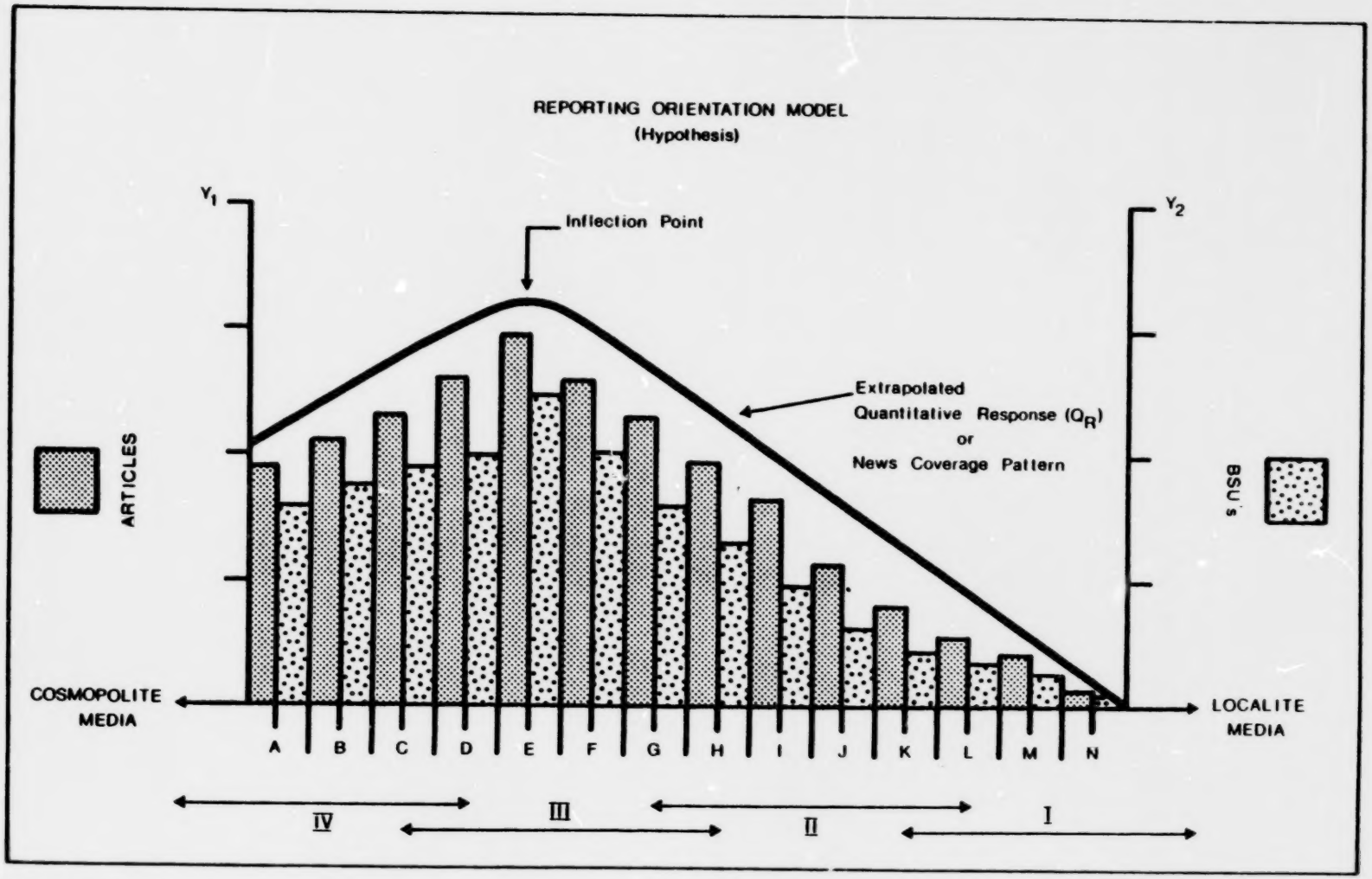
REPORTING ORIENTATION MODEL
(Hypothesis)
Y_1
Y_2
Inflection Point
Extrapolated
Quantitative Response (Q_R)
or
News Coverage Pattern
ARTICLES
BSU's
COSMOPOLITE
MEDIA
LOCALITE
MEDIA
A
B
C
D
E
F
G
H
I
J
K
L
M
N
IV
III
II
I

FIGURE 1

as the degree to which the hazard reporting of a newspaper is external to its market area or region of premier sensitivity. The term, localite, on the other hand, is the degree to which hazard coverage is internal to a newspaper's market area or region of premier sensitivity.

The second component of the Model is the classification of newspapers according to four types. The types stretch along the length of the reporting continuum and shade into one another (Figure 1 and Tables 1 to 4). Each type is characterized by both institutional and news coverage characteristics. Institutional traits include editorial philosophy, publication and news gathering technology, quality and type of reporting, and manpower resources. Data regarding these characteristics were collected during interviews with the editors and/or publishers of the sampled Canadian and American newspapers. Hazard news coverage characteristics include reporting orientation and sensitivity, publication pattern through time, frequency and direction of editorial comment, and informative value. Data regarding these variables were obtained from the content analysis of the sampled papers. Individual newspapers are placed within the four types after their performance in these areas is examined. Institutional variables traditionally used to classify newspapers or to suggest a class, such as frequency of publication (weekly, biweekly, triweekly, daily) and circulation size are also considered here, but they have been shown to be less precise signs and determinants of the

TABLE 1

INGREDIENTS OF THE COSMOPOLITE - LOCALITE MODEL

Type I Newspapers
Institutional Characteristics

EDITORIAL PHILOSOPHY: The maintenance of spirit and cohesion through the publication of anecdotes of community life. (1)

EDITORIALIZATION: Absent; non-prescriptive when published.

NEWS COVERAGE ORIENTATION: Extremely localite.

NEWS COVERAGE TYPE: Reactive (Passive).

NEWS COVERAGE QUALITY: Factual, but minimum substance.

NEWS COVERAGE PATTERN THROUGH TIME: Random or sporadic.

NEWS HANDLING AND PROCESSING STRUCTURE: Elementary division of labour; few reporters and other information resources.

PUBLICATION FREQUENCY: Weekly.

MARKET AND READERSHIP: Single community; homogeneous in a socio-economic sense.

Type I Newspapers
Hazard News Coverage Characteristics

Natural Hazards are perceived as contentious and potential threats to community cohesion. Hazard reporting is left to media with the ability and the disposition to do so. There is a marked absence of editorial opinion as these papers attempt to remain neutral and passive in small, homogeneous communities. Information on the incidence of localized hazards is published sporadically, if at all. The news coverage does not monitor shoreline change and, therefore, cannot serve as the basis for an analysis of adjustment decision making through time. In fact, the news coverage is not substantial and it contributes little to the knowledge of either process or adjustment. The low level of familiarity with the hazardousness of other municipalities reduces the comprehensiveness of any theoretical or actual range of choice compiled by the reporting through time. The news coverage has a weak mobilization potential, in part, because the identification of decision making actors and institutional arrangements is superficial. (1)

ASSESSMENT: Informative value is limited.

(1) Statements developed from interviews and correspondence with editors of the MADISON PRESS (Ohio), NORTH EAST BREEZE (Pennsylvania), RIDGETOWN DOMINION (Ontario), VERMILION PHOTOJOURNAL (Ohio), WHEATLEY JOURNAL (Ontario).

TABLE 2

INGREDIENTS OF THE COSMOPOLITE - LOCALITE MODEL

Type II Newspapers
Institutional Characteristics

EDITORIAL PHILOSOPHY: The establishment of a public affairs forum that publicizes issues maturing in the community. (1)

EDITORIALIZATION: Non-prescriptive; opinionative.

NEWS COVERAGE ORIENTATION: Localite.

NEWS COVERAGE TYPE: Reactive.

NEWS COVERAGE QUALITY: Factual; Substantial.

NEWS COVERAGE PATTERN THROUGH TIME: Regular to Clustered.

NEWS HANDLING AND PROCESSING STRUCTURE: Elementary to secondary division of labour; additional reporting staff permits the establishment of *news assignments;* considerable use of *outside* information and news sources.

PUBLICATION FREQUENCY: Weekly; BiWeekly; TriWeekly.

MARKET AND READERSHIP: Singles community and several adjacent municipalities.

(1) Statement developed from interviews and correspondence with editors of the BLENHEIM NEWS TRIBUNE (Ontario) and the LEAMINGTON POST AND NEWS (Ontario).

Type II Newspapers
Hazard News Coverage Characteristics

Natural Hazards are perceived as newsworthy subjects if they have direct implications for the communities in which the papers find themselves. Less diversity in community structure promotes less diversity in the hazard information disseminated. The papers do not possess wire services, and correspondents are not maintained in major decision making centres. Editors devote attention to relevant articles appearing in other media. Much hazard information is extracted from these sources, and is re-worked with local sensitivities in mind. Editorial comment is issue dependent, and it may be either non-prescriptive or opinionative. The papers may assume the roles of opinion leaders or change agents. Information on the incidence of localized hazards is published within restricted time frames, and it may appear clustered around issues and events. Though the publication pattern may appear sensational, the information is both factual and substantial. The coverage makes a contribution to the knowledge of adjustment to shoreline process. There is a low level of familiarity with hazard and adjustment in distant places. This reporting characteristic reduces the comparative value of the news coverage. It also suggests that the difference in attention paid the actual and the theoretical range of choice may be large. Such papers have a mobilization potential because reporting consistently describes the activities of interest groups and other actors, and the institutional arrangements providing shoreline hazard management.

ASSESSMENT: Informative value is considerable, particularly in the context of local experience with hazard and adjustment.

TABLE . 3
INGREDIENTS OF THE COSMOPOLITE - LOCALITE MODEL

Type III Newspapers
Institutional Characteristics

EDITORIAL PHILOSOPHY: The analysis and the conveyance of information on municipal and regional affairs, and the setting of the civic agenda. (1)

EDITORIALIZATION: Opinionative; Prescriptive.

NEWS COVERAGE ORIENTATION: Local, Regional.

NEWS COVERAGE TYPE: Reactive; Retrospective.

NEWS COVERAGE QUALITY: Factual; Substantial; Evaluative.

NEWS COVERAGE PATTERN THROUGH TIME: Regular; Random; Clustered; Issue and Event Dependent.

NEWS HANDLING AND PROCESSING STRUCTURE: Secondary to tertiary division of labour; large reporter-pool; use of regional correspondents and news bureaus.

PUBLICATION FREQUENCY: Daily (6 or 7 days).

MARKET AND READERSHIP: Single community and surrounding regional municipalities.

(1) Statements developed from interviews and correspdence with editors of the CHATHAM DAILY NEWS (Ontario), DETROIT FREE PRESS (Michigan), ERIE DAILY TIMES (Pennsylvania), LONDON FREE PRESS (Ontario), and the TOLEDO BLADE (Ohio).

ASSESSMENT: Informative value is considerable, particularly in the context of the regional experience with both hazard and adjustment.

Type III Newspapers
Hazard News Coverage Characteristics

Natural Hazards are perceived as just one of the many environmental stimuli competing for a limited news hole. Regional news gathering and reporting responsibilities are complex and competitive, and the coverage reflects this situation. A diverse, heterogenous market area produces greater diversity in the news coverage in terms of hazard type and shoreline morphology. The newspapers subscribe to wire services and maintain or have access to correspondents in major decision making centres. In addition, some Type III newspapers have their own district bureaus throughout their coverage areas. Many shoreline municipalities are source points for hazard and adjustment information, and cumulative experience produces, in total, a regular publication pattern through time. The additional attention paid specific hazards by regional bureaus is often superimposed upon this long-term pattern, and may result in varying degrees of sensationalism. There is familiarity with local, regional, provincial, national and international hazard experiences. The theoretical and the actual range of choice of adjustments are comprehensive, and the comparative value of the information published is strong. The news coverage is composed of factual, substantial, and evaluative articles. It makes a balanced contribution to the knowledge of both process and adjustment. Editorials may be either opinionative or directive, and they are usually responses to regional and national issues. Type III newspapers have a mobilization potential because they publish articles containing the necessary ingredients - interest group and actor roles, range of possible of adjustments, and the institutional arrangements directing decision making. (1)

TABLE 4

INGREDIENTS OF THE COSMOPOLITE - LOCALITE MODEL

Type IV Newspapers
Institutional Characteristics

EDITORIAL PHILOSOPHY: The surveillance and scrutiny of government, and the investigation of local, provincial, national, and international affairs.

EDITORIALIZATION: Opinionative; Prescriptive; Directive.

NEWS COVERAGE ORIENTATION: Cosmopolite.

NEWS COVERAGE TYPE: Anticipatory; Reactive; Retrospective.

NEWS COVERAGE QUALITY: Factual; Substantial; Evaluative; Investigative.

NEWS COVERAGE PATTERN THROUGH TIME: Random; Regular; Clustered.

NEWS HANDLING AND PROCESSING STRUCTURE: Large, sophisticated, and complex; innovative in the areas of distribution, publication, and news selection.

PUBLICATION FREQUENCY: Daily (6 or 7 days).

MARKET AND READERSHIP: Several municipalities, and regional to national circulation.

(1) Statements developed from an interview and correspondence with the managing editor of the TORONTO GLOBE AND MAIL.

Type IV Newspapers
Hazard News Coverage Characteristics

Natural Hazards are perceived as foci upon which the performance of government and the resilence of society can be examined. The news coverage samples the hazard experience of distant physical, social, and political environments. The reporting, therefore, has a strong national and international flavour. As a matter of policy, Type IV papers do not provide continuous or regular coverage of local hazards and adjustment decision making unless these events have broad implications. The editorial philosophy is as influential in determining the reporting orientation as is the heterogeneity of the readership. Editorials are opinionative, perscriptive and/or directive. Opinion leader and change agent status can often be assigned to these newspapers. The news gathering and processing structure is large and sophisticated. The publication pattern through time is complex and variable because it is issue dependent. The pattern runs the gamut from random, to regular, to clustered. Because much of the reporting is investigative, less visible issues are often transformed into public issues, and a contribution is made to the provincial and/or national agenda. The news coverage contributes to the knowledge of both process and adjustment by provinding a selective, cosmopolitan overview. The comparative value of the reporting, therefore, is subtantial. These newspapers have an important mobilization potential because they are agenda setters. (1)

ASSESSMENT: Informative value is considerable, particularly in the context of cross-cultural comparisons and in the context of a comprehensive discussion of the broader implications of events and issues.

qualitative (content) and quantitative character (number of articles and news volume) of hazard reporting (Needham, 1976; and Needham, 1979).

Institutional and hazard news coverage characteristics are presented in Tables 1 to 4. A brief description of important qualities may further clarify the distinction among types and help to illuminate their informative value in the context of natural hazards. It must be stated before continuing that the position assumed by any one paper along the continuum may be thought of as reflecting newspaper sensitivity to changing environmental conditions. Sensitivity is a variable, uneven reflex among types. Newspapers as socializing institutions attempt to remain cognizant of the concerns, interests, and values of their readership, including environmental changes in their market and coverage areas. However, the motivation, manpower resources, and information technology needed to react to relevant environmental stimuli are not distributed equally among newspapers. As a result, some papers may be incapable of producing an immediate news coverage or editorial response. In effect, some of the more localite papers may possess a contracted perceptual environment, and their awareness level may appear low to many reviewers. Expectations and condemnations of newspaper performance must be qualified by the knowledge of such limitations and constraints.

Type I Newspapers

Type I newspapers are found clustered along the extreme, right appendage of the cosmopolite - localite continuum (Figure 1). These journals perform the functions of community information forums, bulletins, or newsletters. They publish short anecdotes on community life and activity, public service announcements, and they are a valuable communication vehicle for local and regional advertisers. In fact, merchantising or advertising may be considered the most important function of these newspapers, rather than the *hard news* or environmental information provisory role.

Previous research suggests that such journals attempt to capture and to maintain an area of comparative advantage over regional newspapers. Greenberg (1964) concludes that the small community press serves as a tool of unification in the community by printing local news and pictures which the larger dailies do not publish. The local weekly is, therefore, not in competition with the surrounding press, but serves complementary rather than competing functions. Because of this reporting orientation, one would expect local affairs to account for the largest proportion of the total hard newshole (Table 5). Canadian and American newspapers presently considered representative of the Type I class, the *Ridgetown Dominion, Wheatley Journal, Madison Press, North East Breeze,* and *Vermilion Photojournal,*

possess such a strong localite orientation. This orientation is understandable in light of the fact that the market and coverage areas of such newspapers are single communities or municipalities.

The editorial phylosophy and the reporting orientation of Type I newspapers are most often the product of economic, social, technological, and political constraints, such as a small paid circulation, a homogeneous readership, a less than state of the art composing and publishing system, and a politically monogamous market area. As a result, these newspapers are less likely to report or comment upon environmental and other issues which focus attention on individuals and groups within their market areas, for example, municipal leaders, agricultural associations, service clubs, and cottagers' associations. In fact, previous research suggests that total avoidance of open debate over public issues and affairs occurs to a significant extent among newspapers and other media in small, rural communities. Olein, Donohue and Tichenor (1968, p. 243) observe that while controversy in public affairs may be reported regularly by most metropolitan papers, it appears that such conflict is a less common ingredient of news in the local press. In addition, editorialization is often thought of as a negative force for maintenance and cohesion in less pluralistic communities. There is, therefore, a marked absence of editorial opinion as Type I papers attempt to remain passive and non-prescriptive (Table 1).

In the context of informative value, it is contended that such institutional and news coverage characteristics result in a limited view of natural hazards and associated environmental issues. It is anticipated that local hazard information is published sporadically or not at all. It is, therefore, difficult to follow the progress of local hazard experiences and the resultant adjustment decision-making. Responsibility for hazard news coverage outside of the community market - regional, provincial, national, and international - is most likely left to daily newspapers whose trade areas are superimposed upon the markets of these Type I journals.

In the context of news coverage quality, articles have minimum substance, and they are bland in nature as opposed to being evaluative or probing (Table 1). Type I papers generally lack the manpower resources or the information sources necessary for a broader reporting orientation (Table 6). As a result, immediate, local sensitivities are the ultimate determinants of newspaper content, and this condition results in a parochial, extremely localite reporting orientation. With its nearly exclusive concentration on the local scene, the weekly community paper from the Type I class leaves a functional void in the reporting of the larger social system.

Nagelson (Personal communication, 1978 and 1980), editor and publisher of the *North East Breeze*, comments upon her newspaper's

role in the realm of information management:

> *I do not have the ability or the means to do much more than what you see in this week's edition. The Breeze is a community paper with resources to just handle local events and provide space for regular advertisers. There are no guarantees that things happening in the township or the county will be covered.*
>
> *Four people do the bulk of the writing. I write many of the articles whether I have a sound command of the subject matter or not. Most of the copy is volunteered by individuals in the Borough, and in the surrounding township...I often receive flyers and bulletins in the mail from various state agencies about Lake Erie matters, such as pollution, flooding, and erosion. But either the subject matter is too scientific or the form of the information is too complex. It prohibits me from publishing a story, or even understanding what has been sent me.*
>
> *If students and researchers like yourself want newspaper articles on Lake Erie water levels and associated problems, you will not be able to find them in past editions of the Breeze. I would be quite willing to accept short articles from university people if I thought the community of North East would be interested. I do not think the people of North East are interested in Ontario's hazard problems. It must be realized that many small, local weeklies in this state can not make it on news coverage and advertising alone. At least one half of our revenue comes from the job - printing end of the business.*

Scoyne (Personal communication, 1975 and 1978), editor and publisher of the *Ridgetown Dominion* provides additional insight into the editorial philosophy of Type I newspapers when he states:

> *The Dominion rarely takes firm stands on issues at home or down the road. This does not mean that we are unwilling to write an opinion piece. But, strong feelings would have to be present. I really can not afford to antagonize, and I really do not want to.*

Very often the editorials and cartoons we do run are taken from other papers. It just is not our job to come down hard on issues and the people involved. Would our opinion serve a useful purpose or contribute anything in the end?

The paper tries to be as supportive as it can be to the community of Ridgetown.

If the residents of Ridgetown really want to read about Lake Erie hazards they can refer to the London Free Press, or one of the other dailies, that make it a point to be cognizant of shoreline problems.

Type II Newspapers

Type II newspapers occupy positions on the reporting continuum immediately to the left of Type I papers (Figure 1). They are primarily localite in orientation, but the local frame of reference is supplemented by coverage of issues evolving in adjacent municipalities if they are perceived as exhibiting local ramifications. The available manpower resources sustain this enlarged reporting responsibility (Table 6). The *Leamington Post and News*, for example, has the largest permanent and part time reporting staff of any of the Canadian and American weeklies sampled. In addition to full time reporters, editors, and correspondents the *Post and News* possesses a network of stringers in the immediate districts that contribute seasonal and special interest items on a regular basis. It is anticipated that the Leamington paper will publish the largest proportion of Lake Erie hazard news coverage attributable to sampled Canadian and American weeklies.

Type II newspapers contribute substantially to the local, civic agenda, and they often assume the roles of opinion leaders and change agents. Editors and reporters sense that there is potential for community involvement and awareness when a community newspaper contributes information and focusses attention on topics. Local sensitivities dictate newshole subject matter, and news coverage does much to define the shared set of economic, environmental, political, social and other concerns common to the readership (Table 5).

The time, effort, and space devoted to local and relevant regional news are dependent upon perceived public interest. Demand for information of all kinds becomes more varied in both scope and direction in heterogeneous markets. As a consequence, the configuration of information available to the average citizen tends to differ sharply from one community to another. Type II journals have larger circulations and their readership is structurally more complex than the Type I papers. But, the centre of premier reporting sensitivity is still a single community, for example, Leamington for the Post and News and Blenheim for the News Tribune.

In the context of informative value, hazard news coverage is published within rather restricted time frames, and it may appear sensational or clustered around an event (Table 2). News coverage exhibits little familiarity with issues transpiring in distant places.

TABLE 5

NEWS CATEGORIES OF THE SAMPLED CANADIAN AND AMERICAN NEWSPAPERS

Newspapers	Local Affairs as a % of Total Newshole	Regional Affairs as a % of Total Newshole	Provincial (State) Affairs as a % of Total Newshole	National Affairs as a % of Total Newshole	International Affairs as a % of Total Newshole	Total Newshole in BSU's	Total Newshole as a % of Total Newspaper Volume	Average Edition Length In Pages
Canadian Newspapers:								
Toronto Globe and Mail (IV)	13.71	13.11	30.77	25.16	17.25	2055.93	45.21	38
London Free Press (III)	24.34	19.58	23.89	21.33	10.86	1863.75	25.86	58
Chatham Daily News (III)	39.50	35.32	14.10	7.44	3.64	1066.30	31.78	28
Leamington Post and News (II)	88.15	7.99	2.31	1.55	--	941.78	26.92	26
Blenheim News Tribune (II)	95.63	4.37	--	--	--	368.53	19.99	28
Wheatley Journal (I)	98.40	1.60	--	--	--	296.88	28.37	16
Ridgetown Dominion (I)	94.35	5.45	--	--	--	594.69	29.37	16
American Newspapers:								
Toledo Blade (III)	28.33	29.24	20.16	17.66	4.61	1739.50	25.95	54
Detroit Free Press (III)	26.61	30.03	19.39	18.75	5.22	1586.84	22.58	60
Erie Daily Times (III)	45.77	10.69	30.75	10.44	2.35	1434.93	23.26	52
North East Breeze (I)	98.70	1.30	--	--	--	447.12	17.25	20
Vermilion Photojournal (I)	98.63	1.37	--	--	--	309.78	19.37	24
Madison Press (I)	98.50	1.50	--	--	--	344.56	15.61	18

TABLE 6

MAN-POWER RESOURCES OF THE

SAMPLED CANADIAN AND AMERICAN NEWSPAPERS

Newspapers	Newsroom Reporting Staff Including Photographers	Editorial Writers, Copy and News Editors	Bureau and District Correspondents	Stringers and Part Time Columnists	Support Staff Including Librarians	Total News Personnel
Canadian Papers:						
Toronto Globe and Mail *(1)*	107	54	21	35 to 45	16	⩾233 ⩽243
London Free Press *(2)*	104	43	15	25 to 30	9	⩾196 ⩽201
Chatham Daily News *(3)*	14	6	8	19	2	49
Leamington Post and News *(4)*	4	1	3	5 to 20	1	⩾14 ⩽29
Blenheim News Tribune *(5)*	2	1	0	10	1	14
Wheatley Journal *(6)*	1	1	0	4	0	6
Ridgetown Dominion *(7)*	3	1	1	8	0	13
American Papers:						
Toledo Blade *(8)*	85	49	9	2 to 25	16	⩾179 ⩽184
Detroit Free Press *(9)*	84	71	12	25 to 30	17	⩾209 ⩽214
Erie Daily Times *(10)*	12	7	10	10 to 16	2	⩾41 ⩽47
North East Breeze *(11)*	3	1	4	6	1	15
Madison Press *(12)*	3	2	2	6	1	14
Vermilion Photojournal *(13)*	2	1	2	10	1	16

Sources:
(1) E. C. Phelan, Former Assistant Managing Editor
(2) E. Cusack, Head Librarian
(3) D. Waite, Editor
(4) A. Duncan, Editor
(5) G. Laurie, Editor
(6) R. E. Epplett, Editor and Publisher
(7) M. J. Scoyne, Editor and Publisher
(8) W. Rosenberg, Managing Editor
(9) J. Oppedahl, City Editor
(10) L. Kholos, Managing Editor
(11) P. Nagelson, Editor and Publisher
(12) L. Chandler, Assignment Reporter
(13) R. Hallett, Editor

In fact, few articles can be expected with datelines from provincial, national, and international centres. Local news is, however, both factual and substantial through time (Table 2). Similar to Type I journals, Type II papers lack *morgues* or clipping services, and wire copy may only be available from other newspapers. As a result, retrospective articles are rare because background material and past stories are not readily accessible (Laurie, Personal communication, 1975).

Duncan (Personal communication, 1974 and 1977), editor of the *Leamington Post and News*, comments upon the performance and publishing characteristics of his newspaper:

> *The Post and News is a one town newspaper. This is not to say that it is unaware of conditions elsewhere in southwestern Ontario or of the decisions being made on our behalf in Toronto and Ottawa. Published articles are the ones that make it through the local interest sieve. Far more material is available each week than can be used in a single edition, but it is largely extra-local or chaff. Most of these articles are carried by Windsor, Chatham, and London papers. Unless they can be re-worked and given a local perspective, they are not duplicated.*
>
> *The Post and News is selective about the news-stories it publishes. There are those articles written by our reporters, those appearing or heard in other media, and those submitted by correspondents. Staff reporters devote their time to local interest stories. Articles appearing first in other papers often provide the basis for a Post and News follow-up. District correspondents volunteer articles on anything and everything - gossip, sports, accidents. Newsstories also originate with Thomson correspondents in the home*

office and with the chain's Ontario legislature reporter.

Every article must pass through the local interest screen. Yes, there is considerable editing. But, this paper is the Leamington Post and News. If a different viewpoint is desired, another newspaper will have it.

The city of Leamington has an agricultural and recreational base. Since the 1972 Lake Erie storms the paper has published numerous articles and several editorials on the plight of farmers and cottagers in Mersea and Sandwich townships. There has been so much money spent and so much dyking and draining that I can not help but react editorially. I do not agree with present policy and I do not agree with the formula to distribute the cost. I know that you will find several columns discussing the pros and the cons of hazard adjustments.

Type III Newspapers

Type III newspapers rest primarily left of centre on the cosmopolite - localite continuum (Figure 1). This range suggests that they publish regularly articles on issues developing inside and outside of their principal coverage areas.

Editions of Type III papers possess the largest total newshole in terms of pages. There is a decreasing allotment of space among local, regional, provincial (state), national, and international affairs (Table 5). The most variable component of the public affairs mix is regional reporting.

Newspapers with complex circulation and coverage areas, that

is, numerous villages, towns, cities and other municipal units are expected to reflect in their news coverage a wider range of sensitivities in the environmental realm. Generally, Type III newspapers serve pluralistic regions and a heterogenous readership. Such a clientelle has a diverse range of economic, political, and social characteristics.

Newspapers that pursue enlarged reporting domains may not only attract public attention to issues, but they may also be instrumental in defining topics, focussing public attention, and maintaining public interest through time. Type III papers willingly assume roles as opinion leaders and change agents. Opinionative and prescriptive editorials are often complimented by evaluative reporting (Table 3). Ethical questions associated with such editorialization and news coverage have resulted in an extensive body of literature.

Type III newspapers have larger manpower resources than either Type I or Type II journals (Table 6). In addition to a substantial number of staff reporters, a network of district, regional, provincial, and national correspondents is maintained. Wire services are available from major lines, such as Associated Press (AP), Canadian Press (CP), Knight-Ridder Service (KRS), New York Times Service (NYTS), United Press International (UPI), and Reuters (Table 6).

It is important to note that a strong support staff is available to reporters and editorial writers of Type III newspapers. Librarians and clerks often manage information retrieval systems. For example, the *Detroit Free Press* maintains a library in which articles are filed under 19 interest categores (Kopecky, Personal communication, 1980). The *Toledo Blade* utilizes a sophisticated clipping and duplicating service which relies upon immediate accessibility to over 50,000 subject and bibliographical files (Trimble, Personal communication, 1980). The *London Free Press* possesses the most comprehensive system. Articles are indexed, cross-referenced, and deposited into 200,000 subject and bibliographical files within 24 hours of first publication (Cusack, Personal communication, 1976). The *Erie Daily Times* and the *Chatham Daily News* have microfilm collections of past editions, a retrieval method that is a support system for the other newspapers just identified (Kholos, Personal communication, 1980; Waite, Personal communication, 1975).

It is contended that newspapers with such manpower resources and support services publish a broader view of natural hazards, and also associated environmental issues.

In the context of informative value, Type III newspapers exhibit the most balanced cosmopolite - localite reporting orientation. The most frequently published articles have local and regional

themes (Table 6). Provincial, national and international issues and events are sampled regularly. Manpower resources and information technology allow Type III papers to publish immediate accounts of hazard experience in an unlimited number of environments.

Oppedahl (Personal communication, 1980) city editor of the *Detroit Free Press*, made the following comments about the daily paper:

> *In comparison to Canadian daily newspapers the Free Press must seem immense. Recent circulation figures placed the paper in the 600,000 bracket, Monday to Friday. Statistics can be misleading because they say little about state and national distribution. Most of our papers are sold in Metropolitan Detroit, but we do publish an out-of-state and a northern Michigan edition. They are daily editions (9:00 pm) and the run is small.*
>
> *The Free Press is a regional newspaper and its outlook is determined by the interests and conerns of the 4 million people living in Metro, almost one-half of the State's population. There are over 50 municipalities in the area. In one sense the Free Press must be perceived as a regional paper, and in another it becomes local when the metropolitan area is considered a single, homogenous unit.*
>
> *There are over 50 dailies and 200 weeklies in Michigan alone. Each of these newspapers devotes itself to a bit of the state. America, therefore, must be considered a country of local papers. Grand Rapids is of interest to us only if the item relates strongly to metro life. Otherwise, Grand Rapids is as remote as Toronto, Ontario.*
>
> *Detroit is so multi-faceted that it has to be the prime responsibility. State news really originates here. What the Free Press does with national and international news will differentiate it from other dailies. The Free Press, and the United States generally, are inward looking. I would not anticipate*

good national and international coverage. If this newspaper has published five articles with a Canadian colouration, it will be a surprise. Windsor is a curiosity, but so are Toledo, Chicago, and Buffalo. Correspondents and bureaus are established in Lansing, Washington, Oakland and Macomb counties. The Free Press does have a reporter in Toronto.

The Free Press is inward looking on several levels; as a metropolitan newspaper, as a regional newspaper, and as a state newspaper. The strongest news coverage commitments are to Detroit and the State of Michigan.

Type IV Newspapers

Type IV newspapers are found at the left end of the reporting continuum (Figure 1). In addition to local, regional and provincial (state) news coverage, they publish information on national and international affairs (Table 5). It is the strength of these newshole components that distinguish the content mix of Type IV papers from that of the other types. This cosmopolite orientation has been identified as a trait of many metropolitan dailies, such as the Toronto *Globe and Mail*. The *Globe and Mail* has the diverse readership, heterogeneous market and coverage area, editorial philosophy, and manpower resources needed to sustain this perspective (Tables 4 and 6).

In this context, it is important to realize that metropoli do not propogate media clones. By their very nature metropolitan centres perpetuate variety and individuality in the mass media, and this includes a variety of types and reporting orientations. Toronto,

for example, is the home market for three large circulation dailies, the *Globe and Mail* (266, 436), the *Star* (481, 286), the *Sun* (186, 351), and at least 20 suburban weeklies. Each newspaper has its own editorial philosophy, style, news coverage mix, and readership. In addition, circulation strength is only moderately associated with Type IV reporting orientation. Thus, although the quote of Oppedahl (Personal communication, 1980) shows the insularity of the *Detroit Free Press*, on the basis of circulation strength one might assume the Free Press (617, 605) exhibits a more cosmopolitan viewpoint than the Toronto *Globe and Mail*. Later discussion presents a description of the reporting orientation of these two dailies in the context of selected natural hazards.

Type IV newspapers are interpretive sources of environmental information of all kinds. They instinctively provide purposeful exposure to the decisions of public and private officials and administrators. They rarely hesitate to assume the roles of opinion leaders and change agents. Such papers are often expected to declare themselves and to advise and to direct the electorate. In addition to reporting the news, Type IV newspapers often produce news and generate issues. Oftentimes, their articles are the sources upon which other media build editorial comment and reporting.

Editorial positions are supported by evaluative and investi-

gative reporting (Table 4), and the size of the reporting staff is large in comparison to other newspapers (Table 6).

In addition, the support staff and services are perceived as integral newsroom resources. The Toronto *Globe and Mail*, for example, possess both a clipping service and computer assisted article processing. Info-Globe, the on-line information retrieval system, is at the immediate disposal of reporters and editorial writers.

More frequently than newspapers representing other types, cosmopolite papers tend to scan, sample, and then pause for longer periods of time on experience in near and distant places. The surveillance function of the press is perhaps most apparent in Type IV papers (Wright, 1959, pp. 17-23).

As a large proportion of the environmental newshole may be filled with the comprehensive coverage of a few issues or events, many newsworthy topics may be sacrificed or neglected. The information mix in Type IV papers may be less varied, therefore, than it is in Type III, regional newspapers. In other words, the probability that a specific hazard issue will be reported upon is no greater for Type IV newspapers, and may in fact be less.

In terms of their value as sources of hazard information, Type IV newspapers have the least predictable subject matter mix.

Though the news subject is unpredictable, news coverage possesses a unique quality. News coverage tends to concentrate on the broader implications of both hazard and adjustment.

Phelan (Personal communication, 1974), former assistant managing editor of the Toronto *Globe and Mail*, states:

> *The Globe and Mail has an important reporting dominion. It is a national newspaper by reputation, by design, and by necessity. Just as there are levels of government to manage public affairs at different scales, there are newspapers that manage information on different planes.*
>
> *The Globe and Mail's strong suit is its ability to synthesize provincial, national and international affairs and to publish articles relevant to all Canadians; politicians in Ottawa and Toronto, stockbrokers on Bay Street, and students at the University of Waterloo.*
>
> *The Globe does have a responsibility to comment and report upon purely local and metropolitan affairs. But, it has a restricted assignment in these fields. The need to expend any more effort here is questionable in media rich Toronto.*
>
> *Editorials and the opinions of columnists are a natural extension of survey journalism. With reason and cause the paper stokes issues. Politicians and administrators move ever so quickly when their offices are discussed in front and editorial page comment.*
>
> *Though I have never seen a formal study of the Globe's content, provincial and federal water management activities would occupy considerable attention. The newspaper continually looks south of the border and samples regularly traumas around the world.*

Application of the Conceptual Model to the Hypothetical Case

It has been suggested that newspaper response to hazard varies

considerably by type. There is variation because each type possesses a unique perception of hazard newsworthiness. These perceptual differences result in quantitative reporting variations along the length of the cosmopolite - localite continuum. The stylized news coverage curves shown in Figure 2 are those hypothesized and expected for all types as the perception and importance of hazard experience changes.

The first graph in the series is indicative of the situation in which hazard impact is localized, and the entire episode is considered a local interest story. For example, it is anticipated that accounts of municipal harbour dredging and maintenance are more likely to be found in editions of Type I and II newspapers (Figure 2a). The reporting curve is negatively skewed in the direction of Type III and IV papers because they are not as sensitive to the many overlapping occurrences in numerous, distant municipalities in and adjacent to their coverage areas.

The third graph presents the news coverage response of all newspaper types to a hazard experience with perceived regional implications (Figure 2c). For example, it is anticipated that an announcement by the U.S. Army Corps of Engineers to dyke remaining low lying reaches of western Lake Erie is more likely to be published in editions of Type III, regional newspapers.

The fifth graph presents the opposite situation to the case

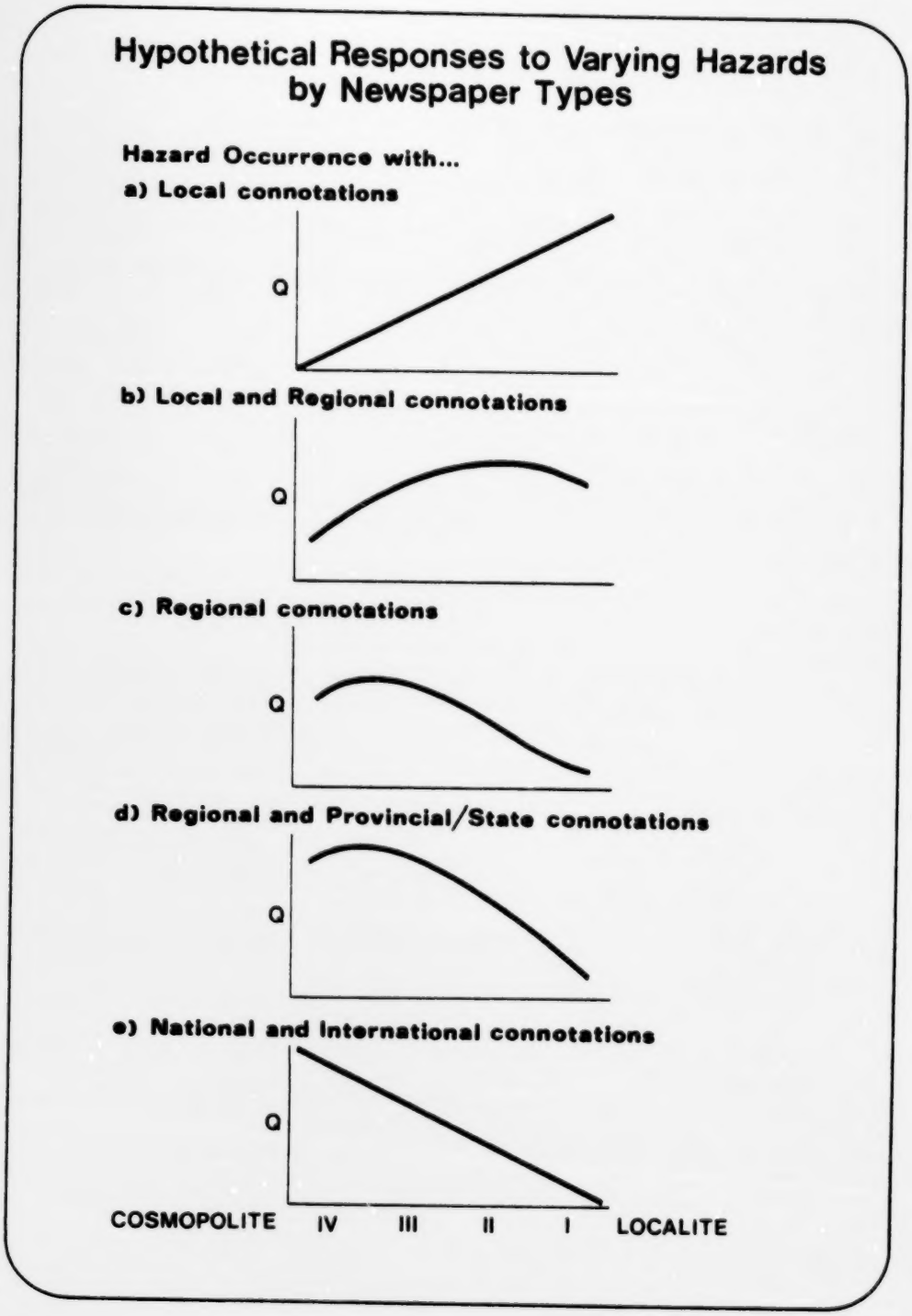
Hypothetical Responses to Varying Hazards by Newspaper Types
Hazard Occurrence with...
a) Local connotations
Q
b) Local and Regional connotations
Q
c) Regional connotations
Q
d) Regional and Provincial/State connotations
Q
e) National and International connotations
Q
COSMOPOLITE
IV
III
II
I
LOCALITE

FIGURE 2

described at the outset. A hazard episode with national and international overtones will receive the most comprehensive coverage in Type IV, cosmopolite papers. For example, a major disaster in central America and a decision by the federal government to contribute to an International Red Cross relief fund are the kinds of hard news themes entertained regularly by Type IV newspapers.

The following section provides a description of the cosmopolite - localite model set against the sampled newspapers' response to selected natural hazards. The objective is to superimpose empirical evidence - the hazard coverage - over the hypothetical reporting patterns just presented to determine the accountability of the Model. A similar method of graph analysis is used to illustrate Canadian and American newspaper response by type.

Application of the Conceptual Model to the General Case: Selected Natural Hazards

Discussion has progressed from an initial review of *type characteristics* and associated *reporting orientations* to a discussion of hypothetical newspaper responses to natural hazards based upon the *cosmopolite - localite model*. A test of this conceptual model against actual Canadian and American newspaper response to selected natural hazards now seems appropriate.

Five kinds of natural hazards are selected: *cyclon* (Bangladesh), *earthquake* (Alaska, Peru), *flood* (Grand River, Canadian Prairies, Rapid City), *hurricane* (Hazel, Agnes), and *volcanic eruption* (Iceland-Heimaey Island). Their occurrence offers the opportunity to compare newspaper responses to extreme geophysical events which impact differently near and distant places, and familiar and unfamiliar economic, physical, political, and social environments. To a large degree, the selection of hazard episodes representative of these five kinds is based upon saliency and severity. The implicit assumption is that hazard experiences of considerable notoriety have the potential to be common news coverage foci for a majority of newspapers and types. For this reason, the Bangladesh cyclone of November 1972, Hurricane Agnes of June 1972, and the Cambridge-Grand River flood of May 1974, and the six other hazard episodes are chosen.

The Bangladesh cyclone, for example, has been described as one of the greatest natural disasters in recent times. In terms of loss of life it may be unsurpassed - 225,000 people died (Burton, Kates, and White, 1978, p. 4; Islam, 1974, pp. 19-25). Hurricane Agnes has been called the greatest material disaster in the history of the United States - property damage was estimated at $3.5 billion (1974 dollars), and 118 people lost their lives (Burton, Kates, and White, 1978, p. 9). The Cambridge-Grand River flood was not responsible for loss of life, and total material damage was less than $7

TABLE 7

CHARACTERISTICS OF SELECTED NATURAL HAZARDS[1]

HAZARD	LOSS OF LIFE	TOTAL PROPERTY[2] DAMAGES
CYCLONE, BANGLADESH (1970)	250,000	>$63 million
EARTHQUAKE, ALASKA (1964)	118	>$500 million
EARTHQUAKE, PERU (1970)	66,794	N/A
FLOOD,GRAND RIVER (1974)	-------	$6.7 million
FLOOD, CANADIAN PRAIRIES (1974)	-------	>$50 million
FLOOD, RAPID CITY (1972)	237	>$160 million
HURRICANE HAZEL (1954)[3]	500	>$75 million
HURRICANE AGNES (1972)	118	>$3.5 billion
VOLCANIC ERUPTION, HEIMAEY ISLAND (1973)	-------	>$5 million

1. Data obtained from various reports and newspaper articles.
2. Statistics in 1974 dollars.
3. 78 deaths in Canada; >400 deaths in Haiti.

N/A No Estimates available.

million (1974 dollars). But, concern about the hazard management of the Grand River Conservation Authority, participating municipalities, and relevant Ministries of the Government of Ontario resulted in a well publicized Royal Commission Inquiry (Leach, 1975). Measures of the magnitude and impact of the other selected hazards are also presented in Table 7.

Newspaper response is measured and recorded in several ways, including total number of articles, total news volume, total number of editorials, number of illustrations, and first week publication. Concern here is primarily for total news coverage, articles and news volume, attributable to individual papers and types (Figure 3). Content analyzed editions of Canadian and American newspapers include those that coincide with the nine hazard episodes. The survey periods for all hazards are at least 60 days in length, and they include pre impact, impact, and post impact editions.

The universe of content was defined as those news stories that specifically considered aspects of the Bangladesh cyclone, Alaska earthquake, Peruvian earthquake, Cambridge-Grand River flood, Rapid City flood, Canadian Prairie floods, Hurricane Hazel, Hurricane Agnes, and the Iceland-Heimaey Island volcanic eruption (Figure 3). Each article was considered to have a *content direction*, and only items that also meant a minimum size or volume requirement were considered.

Six basic content directions were recognized: accounts of impending hazard impact and hazard cause; accounts of impact conditions; accounts of short, medium, and long term effects; descriptions of emergency adjustment decision-making; descriptions of post impact adjustments; and descriptions of long term adjustments directed toward recovery, rehabilitation, and regulation.

Results

The series of graphs displaying newspaper hazard coverage suggests typological response to the selected natural hazards. In this context, Type I and II Canadian and American journals published little or no information on hazards impacting near and distant places, regardless of hazard kind. The paucity of information includes little or no illustrative material in lieu of hard copy - diagrams, maps, and photographs. As previously stated, unless actors, events, and issues are linked in some visible way to the community in which the localite press publishes, there is no hazard reporting. Only in response to hurricanes Hazel and Agnes did the Type I *North East Breeze* and *Ridgetown Dominion*, and the Type II *Blenheim News Tribune* and the *Leamington Post and News* publish articles. Residents identified in these news stories were either known to be visiting relatives in affected municipalities, or they were involved in disaster relief programmes and fund raising projects.

Newspaper Response to Selected Natural Hazards

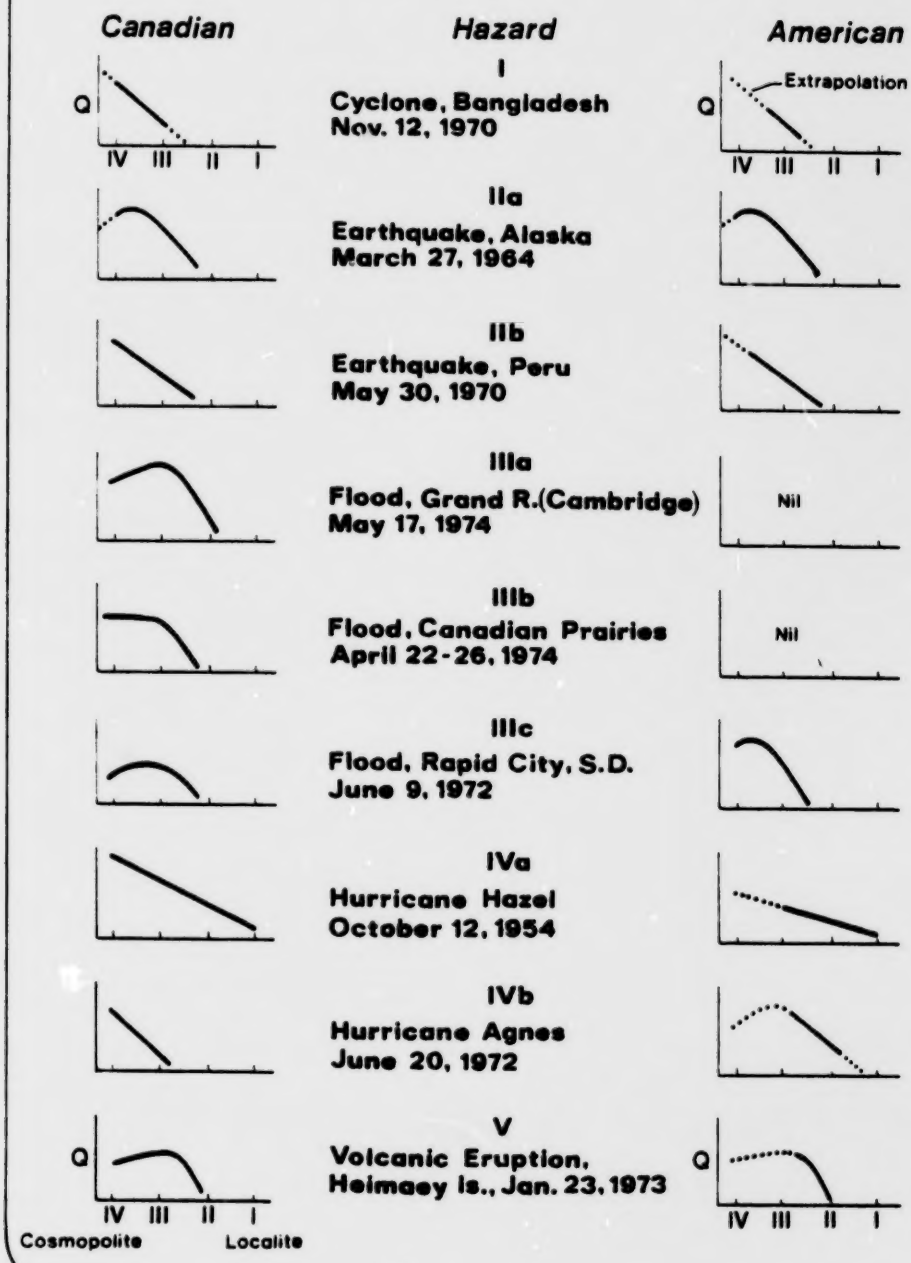

FIGURE 3

Type III Canadian and American newspapers jointly published the largest proportion of total hazard coverage, and they exhibited particularly strong responses to those incidents that they perceived as having local and regional implications. For example, the *London Free Press* printed the most comprehensive coverage of the Cambridge-Grand River flood and the ensuing Royal Commission Inquiry (Figure 3). The Grand River basin is in close geographic proximity to the London paper's primary coverage area, and the Free Press is published in a Thames River basin community with its own history of seasonal, riverine flooding (Province of Ontario, 1952). Similarly the *Erie Daily Times* published more articles on Hurricane Agnes than any other Canadian or American paper. Hurricane Agnes in its dash through northeastern states caused unprecedented damage to communities in Pennsylvania and New York, including much of the coverage area of the Daily News.

The analysis of newspaper response also reveals considerable variation among Type III papers. For example, the *Detroit Free Press*, the largest circulation daily sampled, surprisingly published fewer articles on five of the hazards than either the *Toledo Blade* or the *Erie Daily Times*. But, it responded with the most voluminous reporting on the Alaska Earthquake of any newspaper, Canadian or American.

Much of the reporting difference among Type III newspapers

is linked to cross national coverage. In this context, it can be seen that American papers did not carry articles on either the Cambridge-Grand River flood and inquiry or the Canadian Prairie floods of 1974. Previous research on Canadian and American response to the management of east and west coast oil spills suggests that the American press' preoccupation with local and state affairs keeps it parochial and inward looking (Needham, 1979). It will be interesting to see if the sampled American newspapers also have lean coverage of Canadian experience with hazards associated with fluctuating Great Lake water levels - a continuous and an uniquitous process affecting both the north and south Lake Erie shores. A research note is forthcoming.

The Type IV Toronto *Globe and Mail* performed as anticipated. Its response to the Bangladesh cyclone, Canadian Prairie floods, Peruvian earthquake, and the Iceland-Heimaey Island volcanic eruption was larger than that of the other twelve sampled newspapers. Though it has been reported that the contents of newspapers can be related to a distance-decay function, such a statement now appears imprise in the context of a specific theme like natural hazards when newspaper types are considered (Kariel, 1978; Kariel and Rosenvall, 1978; Kariel and Welling, 1977). Publication statistics also indicate that the *Globe and Mail's* hazard coverage was maintained well into the post impact phase and, therefore, was less sensational than the repor-

ting patterns through time of the other papers .

It is interesting to note that the Globe was the only Canadian or American newspaper that published the *on-the-scene* accounts of staff reporters during two of the hazard episodes, the Alaska earthquake (George Bain and Ruth Worth) and the Canadian Prairie floods (Martin O'Malley). In fact, O'Malley was on assignment in Lumsden Saskatchewan and Carman, Manitoba during the critical phase of flooding, and was responsible for over 40 percent of the paper's coverage.

This evidence supports the contention that Type IV newspapers exhibit strong national and international hazard awareness. It must be noted, however, that the choice of hazards was weighted in favour of national and international experiences. The *Globe and Mail* did not respond with vigour and enthusiasm to a hazard impact closer to its home market, the Cambridge-Grand River flood. In fact, its total news coverage was less than that of either the *Chatham Daily News* or the *London Free Press*, Type III dailies.

In sum, among the more important findings of this paper are the following:

1. *That newspapers possess institutional and hazard news characteristics that can be conceptualized according to types, like those in the Cosmopolite - Localite Model;*

2. *That newspaper perception of and response to hazard varies by type along the length of the reporting continuum.* Weekly journals at one extreme cover only the most localized hazards; papers at the other extreme produce comprehensive coverage of hazards of national and international importance; and the press in the middle range of the continuum publishes a more balanced resumé of local, regional, provincial, national and international hazard affairs.

Discussion

Newspapers possess biases, strengths, and weaknesses in the realm of hazard reporting. These characteristics relate in part to editorial philosophy, manpower and other resources, and the environment in which the press exists. As a result, newspapers assume news and information roles that match their ability and inclination to contribute to the total hazard information mix of society. It is not a question of underplaying a particular news assignment or function as it is a question of capturing and maintaining an area of comparative advantage, an information niché.

Yet, the information role desired of newspapers varies according to one's point of view of position in society. In other words, there are different perceptions of *proper newspaper content.* The actual information niché and the proper niché may or may not be the

same. The many different information demands work to perpetuate variety in content and, therefore, variety in types and reporting orientations.

As public participation has increased in recent years, resource managers have had to develop, and perfect both public relations and communication skills. Grunig and Stamm (1973) suggest that what was once a job of managing physical resources only, is now regarded as a job of influencing public perceptions of these resources and communicating a full range of alternative management strategies to the general public as well. Unfortuantely, few managers have understanding of newspapers as institutions and as means of disseminating information effectively. In addition, few managers possess knowledge of the treatment individual newspapers and types afford natural hazards and other environmental issues (Glynn and Tims, 1980). If resource managers can be made aware of the existence of cosmopolite and localite or other reporting orientations among the community of newspapers, then they may be in a better position to present their programmes and projects to target populations through types that publish the appropriate reporting orientations.

Concomitantly, target populations and concerned citizens may be better informed about hazard management, and may be in a position to contribute more effectively in public participation sessions

if they are aware of the information potential of different newspaper types and decide to use them.

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